AMENDMENTS TO THE ABSTRACT

The invention concerns a real-time navigation method for locating a rover ~~(*SUR*)~~ using three-carrier radio signals of three different frequencies to determine the position of a user, transmitted by satellites ~~(*SAT_1-GPS_{E1}* through *SAT_n-GPS_{En}*)~~. The method comprises a first step for determining "extra-wide lane" carrier phase ambiguity, a second step for estimating "wide-lane " phase ambiguity, and a third step for resolving the phase ambiguity of one of the frequencies. An additional step consists in the application of real-time ionospheric corrections during the third step, these ionospheric corrections being based on a continuously updated ionospheric model of said ionospheric layer calculated by a fixed ground reference station ~~(*REF-REF_E*)~~, combined with geodetic data calculated by a so-called master fixed ground reference station ~~(*REF_M-REF_{ME}*)~~. The invention also concerns a system for implementing the method.